

Description

The AN/TPQ-37 is a long-range battlefield surveillance radar that accurately, rapidly, and automatically locates a variety of enemy indirect fire weapon systems. It can handle simultaneous fire from weapons at multiple locations, detecting and reporting their positions on the first round. The AN/TPQ-37 system is mobile, reliable, and maintainable. The AN/TPQ-37 also tracks, corrects, and improves the fire of friendly weapons with registration and adjustment data.



FIREFINDER RADAR AN/TPQ-37(V)8

PM Radars

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Characteristics

The Antenna Transceiver Group (ATG) is mounted on a modified M1048A1 trailer with a Medium Tracked Suspension System (MTSS), which is towed by a FMTV M1083 5-ton truck. A MTSS was added to the antenna trailer to increase mobility of the radar on soft ground surfaces. The Operations Central (OC) housed in a Digital Upgraded (DU) S-250 shelter is mounted on a M1097A2 Heavy HMMWV. The Generator Power Distribution Group consists of a 60KW, 400Hz MEP816A/B carried in the bed of the FMTV M1083 5-ton truck that tows the ATG. The spare power unit PU-707 consists of a second 60KW, 400Hz MEP816A/B generator set mounted on a M200 trailer and is towed by a second 5-ton truck which is also used to carry cargo. One (1) AN/TPQ-37 will be assigned to each Heavy & Stryker Battle Command Terminal (BCT). The AN/TPQ-37(V)8 upgraded the ATG cooling system; incorporated C-130/C-141 transportability kit, added a self-survey capability. The AN/TPQ-37 is larger than the AN/TPQ-36, and its target acquisition range is greater. The system uses a combination of radar techniques and computer-controlled functions to detect and accurately locate enemy indirect fire weapons to permit rapid engagement with counterfire.

Special Features

Special features include a new, improved cooler, roll-on/roll-off C-130 transportability, new 6-ton M1048A1 Trailer with MTSS, and Mapping Application for Public Survey (MAPS) Self-survey equipment. The system will be strategically deployable and operable at all levels of conflict. Ability to track, correct and improve the accuracy of friendly weapons with registration and adjustment data. When long-range surface-to-surface missiles must be located, a special 60° sector mode extends the AN/TPQ-37's range.

Capability/Improvements

The AN/TPQ-37 Reliability and Maintainability Improvement (RMI) program will modernize both the ATG and OC. Modifications to the ATG include replacing the liquid cooled transmitter with air cooled, replacing the single TWT with 12 – Power Amplifier Modules (PAM), and relocating the radar processor to the ATG. The OC will be modernized with Commercial Off the Shelf/Government Off The Shelf (COTS/GOTS) equipments to address obsolete components to include flat panel operator displays, optimized work stations, Common Front End (CFE) and Environmental Control Unit (ECU). The result will be a system of exceptional availability with reduced maintenance costs and downtime.

